



## National Officials Committee Equipment and Facilities Specifications Subcommittee

**Date:** November 1, 2009

**From:** Equipment and Facilities Specifications Subcommittee Chair

**To:** National Officials Committee and Secretary

**Subject: 2009 Activity Report for the Equipment and Facilities Specification Subcommittee**

During the year two newsletters, one in February and one in September were sent out to Throwing, Technical Manager and Implement Inspectors. Starting with the September newsletter Ivars Ikstrums (Pacific Northwest) has taken over as editor of the newsletter. All officials that are certified as Implement Inspectors at any level automatically receive the newsletter. Anyone else wishing to receive the newsletter must request a copy. Subscriptions last through each Olympiad. The September newsletter was delivered to 610 subscribers via email and another 177 via USPS. Ivars has been working on getting good addresses for the many we had that were not deliverable. Currently he has 638 email addresses and another 133 that will receive future newsletters by US Mail for a total of 816. The newsletter is also posted on the Officials web site for anyone interested.

We did see some failures of javelins for profile issues this year. This is unusual and possibly related to some inspectors not checking the profile on all implements. Weight of implements, length of hammers and balance for javelins continue to be problem areas. All are generally related to use problems. We did discovery a problem that will cause us problems in the future. We have been using various marks on implements for our control purposes. Some of the implements have multiple examples of our control marks making it difficult to determine the marks for the meet in progress. We are working on methods of removing extra marks without damage to the implement.

The IAAF has passed yet another rule on the hammer handle. There were no other weights and measures rule changes, but there are some related to the technical manager position which will be discussed at our annual meeting on Thursday, December 3 in Reno from 4:30PM to 6:20 PM.

The committee members for this Olympiad are: Bob Springer (Pacific Northwest) as chair, Tony Wayne (North Carolina), Win Eggers (Illinois), David Katz (Long Island), Audrey Griggs (Gulf), David Post (New England), Denise Hutchens (Oklahoma), Jim Skelly (San Diego Imperial), George Kleeman (Pacific), Richard Messenger (West Virginia), Jo Burrows (West Virginia) from Race Walking, TBD from Men's & Women's T&F, Tim Edwards (Colorado) from Masters Track \* Field and Shirley Crowe (Gulf) and Bruce Long (Three Rivers) from Youth Athletics. Attached are the agenda for this year meeting and the MOD of last year's annual meeting at Reno for your files. The MOD was previously posted in the first newsletter.

*Bob Springer*  
Bob Springer, Chair

Attachments: 2008 Meeting MOD, 2009Agenda



**National Officials Committee  
USA Track & Field  
Equipment & Facilities Specifications Subcommittee**

**Indianapolis 2009 Agenda**

**December 4, 4:30 pm- 6:20 pm, Thursday**

**Introductions**

**Approval of 2008 Meeting Minutes**

**Agenda Review and Approval**

**Old Business**

**Status of Action Items/Goals from 2009  
Implement Problems/Reports in 2009**

**New Business**

**Box Collars for PV  
Rules Changes for 2010  
Goals for 2010  
Action Items for 2010**



**National Officials Committee  
Equipment and Facilities Specification Subcommittee**

**USA Track and Field**

**Minutes of Annual Meeting Thursday, December 4, 2008  
Silver Baron Room 6, Silver Legacy Hotel, Reno, Nevada**

**Memorandum of Discussion**

**Committee Members**

Bob Springer  
Norman Brand  
Kris Lung  
George Kleeman  
Shirley Crowe  
Tony Wayne  
David Katz (part time)

**Guests**

Jim Skelly, San Diego Imperial  
Linda Barnes, Snake River  
Bill Boyd, Virginia  
Pat Pretty, Wisconsin  
Jamie Liberty, Snake River  
David Dunbar, South Texas  
Stanley Underwood, Tennessee  
Rex Harvey, Iowa  
Chris Mc Beath, Virginia  
Kay Griggs, Gulf  
Mike Olsen, Oregon  
DeLewis Johnson, So. California  
J.R. Heberle, Pacific  
Bruce Long, Three Rivers  
Ron McLean, New Jersey  
Reginald Weissglas, Metropolitan  
Carroll De Weese, Michigan

Doug Allen, Kentucky  
Rob Buzaitis, Michigan  
Keith Mitchell, Indiana  
Eric Smith, Florida  
Joanne Burrows, West Virginia  
Jerry Westfall, Oregon  
Shirley Connors, Pacific  
Jim Flanik, Lake Erie  
Bill Price, Potomac Valley  
Martha Harris, Southern  
Mike Armstrong, Arkansas  
James Aylsworth, Mid Atlantic  
Peter Sheridan, Adirondack  
Tom Shinnick, Georgia  
Leon Bailey, New Jersey  
Audrey Grigggs, Gulf

The meeting was called to order by Chair George Kleeman at 3PM. Everybody introduced themselves. The minutes from 2007 were approved. The agenda was reviewed and approved.

**OLD BUSINESS**

Two newsletters were written and sent out by George. Several revisions to the specifications in both the Rulebook and the Implement Inspector Handbook were issued during the year base on some errors in the rules for dimensions of masters' implements. There is a current review and update being done for 2009 by Ivars Ikstrums. There was also a submission of a revision to the weight specifications by the Rules subcommittee for the Weight.

**NEW BUSINESS**

There are no Federation Rules changes this year that affected Weights and Measures. There were several changes in the NCAA rules with regard to runways, mostly conforming with USATF and IAAF changes from the previous year concerning the portion that must be level. Likewise they adopted the USATF and IAAF rule that cones must be used at the 800 m breakline. They also specified some details about starting blocks when they are used. Generally the implement specs for NCAA are the same as



USATF and IAAF with the exception of the weight. They now require the maximum thickness at 6mm inside the edge of the discus cannot be greater than 13 mm and the hammer handle specs are also now the same.

David Katz mentioned that the new IAAF Facilities manual was now available and it would be on line also. Among the rule changes for USATF were those which conformed to WMA specifications. Most have been previously transmitted. George reviewed the rule submissions that had an impact on either Implement Inspectors or Technical Managers. Items 52, 56, 57, 58, 59, 60, 62, 75, 83. The most significant ones are 56, 58 and 62. Item 56 allows use of wood or other temporary circles for shot outside. Item 58 deals with cast shots indicating in a note that indentations due to cast the implement weight should not normally be considered a reason to reject such implements. Item 62 deals with the weight and specifically that the head of an implement shall be a sphere and filled so material inside is immovable. The center of gravity as certified by the manufacture shall not be more than 6 mm from the center of the sphere. It can deform on impact but must return to shape of sphere. If a harness is used it may be connected with no more than two steel links and a swivel. The harness must not stretch or show any evidence of elasticity where the overall length would increase while being thrown. As with other implements once inspected and approved it cannot be altered other than to be repaired by the Inspector of Implements.

Some of the other discussion items included:

1. When marking the javelins with the inspectors mark of the day, the mark should be no nearer the grip than 10 cm above or below. This is a general procedure recommendation by athletes. The reason is that they do not want to have the area of finger placement at the end or forward of the grip to be interfered with.
2. The 2009 IAAF Facilities manual is now available. This is an excellent resource for evaluating, or constructing, track and field facilities. The book may be ordered on line from IAAF and it will also be available in pdf format on line.
3. There was a suggestion that we develop an Inspector of Implements' Repair Manual. Though this may be a good idea, considerable amount of equipment and skill is needed to do this work. The work should only be attempted with an athlete's permission and when the Inspector thoroughly understands the implement manufacturing process. The idea is under consideration by the Committee.
4. A future goal of the committee is to look into developing a "Master Inspector/Technical Official Manual" similar to one developed and published by Italy. A copy was circulated in the committee meeting. Other goals (not specifically identified) could be: a write-up on environmental impacts on measurement devices, e.g., implement gauges, steel tape, etc.; a write up on the impact of changes in the center of gravity for weight and hammer throws; a write up on the inspection techniques of weight handles and weight ball.
5. The newsletter needs new articles for publication. We currently are recycling articles which help the newer members. Articles on Facilities and Equipment, or activities will be greatly appreciated.



At the end of the meeting, George handed out another study done by Dan Moy on the effect of contact of the high jump bar with the standards, which is attached.

The meeting was adjourned at 4:15 PM.

George Kleeman

Attachments: Agenda

Annual Report

High Jump Bar Study



HIGH JUMP BAR PLACEMENT (continued---)

November, 2008

Dan Moy  
USATF Master Official  
Jacksonville, IL.

#### DOES THE PLACEMENT OF THE CROWN ON THE HIGH JUMP BAR CREATE ANY ADVANTAGE OR DISADVANTAGE TO A COMPETITOR?

In one of the more recent WEIGHTS AND MEASURES Newsletters I produced some research by placing the high jump cross bar, CROWN UPWARD, on the standards and then CROWN DOWNWARD on the same standards. It was determined it takes about 700 grams of force to dislodge the bar with the CROWN UPWARD and when the bar is placed CROWN DOWNWARD it takes about 900 grams of force to knock the bar off of the standards. The difference of 200grams (0.44 lbs) might make a difference if a competitor just brushes the bar on a trial. This information produced some interesting questions and comments from some of the readers of the Newsletter.

Some officials said, "I always put the crown downward since it shows no bias". Another official said, "I always try to keep the bar as level as possible, but I never knew a reason. Now I can justify the level bar having considered that a jumper has no advantage by jumping over the center of the bar when it is level." Another official stated, "This is the type of research needed to make my decisions".

Since that time I noted that the placement of the high jump cross bar with the CROWN DOWNWARD, also created a visual problem to the event officials. There appeared to be a gap between the support pads and the cross bar ends almost to the point of a distraction to some of the officials and athletes. I determined that I would devise a simple test to see what percentage of the cross bar ends would be in contact with the support pads when the cross bar is placed with the CROWN in different positions.

#### EQUIPMENT:

Fiberglass GILL high jump bar, standards, paper, pencil and metric measuring tape.

PROCEDURE #1. Place a certified high jump cross bar (4.0 m, 2.0 Kg) between two hurdles to determine the crown of the bar, making sure that the bar does not have sag of more than 2.0 cm (20 mm). If the sag is more than 2.0 cm then it should not be used for this test since it could not be used in competition. Mark the interior of the cross bar designating the crown side of the bar for placement on the standard during the testing.

A measurement of the surface of the support pads was taken and this determined to be 4.0 cm wide and 6.0 cm long. (24 cm square) This is the required surface dimensions by rule.

At this point, the rubber support ends were placed on the cross bar so that the CROWN would be DOWNWARD when placed on the standards. The bar was placed on the standards at a height of 1.70 m, according to the printed scale on the standard. The height was also measured from the ground to the cross bar, at a point near each standard base of 1.70 meters. The center of the bar was measured at a height of 1.68 meters, noting the 2.0 cm sag. It was made sure that there was a 1.0 cm space between each end of the standard uprights and the cross bar ends. Measurements were then taken by sliding a clean piece of paper under each end of the cross bar and the upright supports, until the paper could not be slid any further. A pencil line was then placed on the paper on the front side, back side and end of the cross bar. Two sets of results were produced by this procedure from each end of the cross bar.

#### PROCEDURE #2

This procedure would be the same as procedure #1, except that the CROWN would be placed UPWARD. The rubber support ends were removed and rotated 180 degrees and replaced on the cross bar. The cross bar was then placed on the standards at a setting of 1.70 cm. The cross bar was measured at the center and each end near the standard as before, and all reading were 1.70 cm.

A piece of clean paper was then used to determine the space between the cross bar and the support and marked as in procedure #1. (which proved to be not possible.) All parts of the cross bar ends were in complete contact with the support pads.

#### THE RESULTS ARE AS FOLLOWED.

##### PROCEDURE #1:

The support pad is 6 cm long X 4 cm wide = 24 sq. cm

+++ CROWN DOWNWARD +++

LEFT end paper measurements of cross bar not in contact with the support.

3.2cm X 3.2 cm = 10.56 sq. cm- dimensions of cross bar not in contact with the pads.

support

(  $10.56 / 24 = 44\%$  of cross bar, was not in contact with support pads )

RIGHT end of paper measurements of cross bar not in contact with the support pads.

3.3 cm X 5.1 cm = 16.83 sq. cm-dimensions of cross bar not in contact with the support pads.

( $16.83 / 24 = 70\%$  of cross bar, was not in contact with the support pads )

## PROCEDURE # 2

+++ CROWN UPWARD +++

BOTH LEFT and RIGHT ends of the cross bar were in such contact with the support pad that a piece of paper COULD NOT be placed between the cross bar and support pads.

All of this was brought to my attention as I was working in a National Collegiate meet and watched some high jump officials place a cross bar with the CROWN DOWNWARD. Some of the officials (and fans) did not feel that the bar was level and this created such a problem that at each new height the officials measured the cross bar in five different locations to assure that the bar was level. A lot of time was wasted by the excessive measurements since the measuring bar was left at the height of the center of the bar and the other four measurements were approximated via of the human eye.

( ) Since my first article was printed in the WEIGHTS AND MEASURES newsletter four or five officials have stated to me that a "flat crossbar" shows "less bias" to all competitors than when the CROWN is DOWNWARD. Many officials said that measuring the cross bar height is much easier then when CROWN IS UP and it "looks better" ! ) )\_

While discussing this topic with Geo. Kleeman, he related to me that a track and field equipment company in Europe has been asking him to test their newly developed high jump standards to see if he would certify their standards for international competition. It seems that this company has developed a set of standards that have spring loaded support pads. The spring loaded pads, in theory, should allow 100 % of the cross bar pads to be in contact during every cross bar placement. If these new standards can achieve this purpose, than I would be more than ready to say that my experimentation for this article may have been a waste of time.

It should be noted that the GILL COMPANY, Champaign Illinois, has developed high jump cross bar where 15 cm (150mm) have been removed from each end and had been replaced with a hard rubber end. This rubber end looked like the upper jaw of an alligator and was glued in a fixed position so that crown was placed downward. I have been contacted by some readers of the WEIGHTS AND MEASURES newsletter as to what my suggestion for the placement of the cross bar CROWN.

I would suggest that placement of the cross bar with the CROWN UPWARD shows less bias.

It is much easier to measure, and more pleasing to all persons officiating, competing, and watching the high jump. I am aware that it does take 200 grams (0.44 lbs) LESS force to dislodge the cross bar with the CROWN UPWARD. But, as a former jump coach and now a high jump official, that placement of the cross bar would take the same amount of force for every competitor and would not have that "dreaded sag" in the middle.

Maybe this article will encourage officials to think about the equipment that they might be using while working. Check your equipment and run some of your own simple tests. Ask questions and made sure that the conditions for the events are the same for all competitors.

*Dan Moy*